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DATE MAILED: 12/17/2009

# NOTICE OF ALLOWANCE AND FEE(S) DUE

23117 7590 12/17/2009 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203 EXAMINER

LIEE, RIP A

ART UNIT PAPER NUMBER

1706

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.			
10/583,115	06/16/2006	Brian Stephen Kimberley	4702-45	1241			
TITLE OF INVENTION: POLYMERISATION PROCESS							

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/17/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further indicated unless correcte maintenance fee notifical	form should be used to correspondence including d below or directed off tions.	or trans ig the Parker is incrwise i	mitting the ISSU atent, advance or in Block 1, by (a	JE FEE and PUBLICA rders and notification of a) specifying a new con	ATIO of m	ON FEE (if requi aintenance fees w oondence address;	red). E ill be and/or	Hocks 1 through 5 st mailed to the current (b) indicating a sepa	iould be completed where correspondence address as rate "FEE ADDRESS" for
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nonprovisional	NO		\$1510	\$300		\$0		\$1810	03/17/2010
EXAM	INER	- /	ART UNIT	CLASS-SUBCLASS	$\neg$				
LEE, I			1796	526-074000	_				
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 2 or more recent) attach ND RESIDENCE DAT. ess an assignce is ident h in 37 CFR 3.11. Comp	nge of C  Indicated. Use	Correspondence ion form of a Customer  E PRINTED ON		ngle or ag uttori be p type e pai	3 registered patent ely, firm (having as a gent) and the name neys or agents. If a rinted.	memb s of up to nam	er a 2	ocument has been filed for
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NIXON & VAN	DERHYE, PC	LEE, RIP A			
	BE ROAD, 11TH FLO	ART UNIT	PAPER NUMBER		
ARLINGTON, V	A 22203	1796			

DATE MAILED: 12/17/2009

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 129 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 129 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)	
10/583,115	KIMBERLEY ET AL.	
Examiner	Art Unit	
RIP A. I FF	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERTIS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 133 and MPEP 1308.

- This communication is responsive to 31 July 2009.
- 2. The allowed claim(s) is/are 17, 19, 20 and 22-32.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) 

    All b) 

    Some\* c) 

    None of the:
    - 1. A Certified copies of the priority documents have been received.
    - 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
    - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDOMMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) Thereto or 2) to Paper No./Mail Date
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. 
  Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🔲 Other \_\_\_\_

/David Wu/

Supervisory Patent Examiner, Art Unit 1796

Art Unit: 1796

# EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Leonard C. Mitchard on October 20, 2009.

Claim 17, line 7 delete "in the absence of any other catalyst"

Claim 17, line 8 delete "components"

Claim 17, line 9 insert "is a lower alkane and" after "liquid"

Claim 17, line 9 insert "an" between "in" and "amount"

Delete claim 18

Claim 19, line 1 replace "claim 18" with "claim 17"

Claim 31, line 7 delete "in the absence of any"

Claim 31, line 8 delete "other catalyst components"

Claim 31, line 9 insert "is a lower alkane and" after "liquid"

Claim 31, line 9 insert "an" between "in" and "amount"

# Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: Claims 17, 19, 20, 22-32 are allowed.

The present invention is drawn to a process for polymerization of olefin monomers comprising performing said polymerization in a polymerization reactor in the presence of a supported polymerization catalyst wherein prior to injection into the reactor, said polymerization catalyst in the form of a powder is contacted with an inert hydrocarbon liquid in a quantity sufficient to maintain said catalyst in powder form and wherein the inert hydrocarbon liquid is a lower alkane and is present in an amount up to about 10 % of the pore volume of the support; see claims for full details.

Gauthier et al. (U.S. 6,777,366) teaches a process for making supported olefin polymerization catalyts having improved shelf-life and prolonged catalyst activity comprising the step of washing the supported catalyst with hexane. After final dilution in mineral oil, catalysts are isolated and used as a solids slurry. Clearly, the reference does not teach treatment of supported catalyst with lower alkane in an amount of up to about 10 % of the pore volume of the support.

Speca et al. (U.S. 5,688,734) teaches a process for polymerization of olefin in the presence of a supported catalyst treated with a volume of hexane that is between 0.5 to 1 times the pore volume of the supported catalyst. The reference does not teach or render obvious the claimed process in which supported catalyst is treated with lower alkane in an amount of up to about 10 % of the pore volume of the support.

Brant *et al.* (WO 96/34020) teaches treatment of a supported catalyst with an inert hydrocarbon component comprising poly(*p*-methylstyrene) dissolved in pentane. Subsequent removal of pentane in vacuo results in formation of coated supported catalyst.

Art Unit: 1796

Jacobsen et al. (U.S. 7,528,090; WO 2005/019274) teaches treatment of catalyst support material with an inert C<sub>5</sub>-C<sub>8</sub> hydrocarbon liquid at 0.01 to 2 times the pore volume of the support material in which treatment is carried out prior to contact of porous support with other catalyst components. In contrast, the present invention is drawn to treatment of supported catalyst, which contains all catalyst components, with inert lower alkane at less than 10 % of pore volume. Thus, it is deemed that the claimed process is patentably distinct over that of the prior art.

Kamfjord *et al.* (*Macromol. Rapid. Commun.*, 1998, 19(10), 505-509) teaches preparation of supported catalyst by impregnation of support with a 1-hexene solution of metallocene. In this case, 1-hexene is not a lower alkane.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 1796

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rip A. Lee/ Examiner, Art Unit 1796

October 20, 2009
/David Wu/
Supervisory Patent Examiner, Art Unit 1796